

Appl. No. 10/517,378
Amendment dated: June 20, 2007
Reply to OA of: January 23, 2007

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claims 43-45(canceled).

46(currently amended). ~~Product~~ A porous spongy material for bone grafting application comprising S-sulfonated keratin and hydroxyapatite in a weight ratio of S-sulfonated keratin to hydroxyapatite ranging from 1:0.1 to 1:2, ~~S-sulfonated keratin to hydroxyapatite respectively, processed to form a porous spongy material~~, where the S-sulfonated keratin is optionally treated with a reducing agent to remove sulfonate functionality and provide disulfide crosslinks.

47(currently amended). ~~Process~~ A process for preparing the ~~product porous spongy material~~ of claim 46 comprising the steps of forming an aqueous solution of S-sulfonated keratin, suspending hydroxyapatite in the S-sulfonated keratin solution at a weight ratio of S-sulfonated keratin to hydroxyapatite ranging from 1:0.1 to 1:2, respectively, and ~~them~~ then freeze drying.

48(currently amended). The process of claim 47 comprising the additional steps of treating the freeze dried material with a reducing agent to remove sulfonate functionality from the S-sulfonated keratin and form disulfide crosslinks, washing to remove the reducing agent and freeze drying the washed material.

Claims 49-53(canceled).